

- evaluating each of said plurality of subsets against a set of reliable measurement results for said subject;
  - A<sup>2</sup> - selecting one of said subsets based on a preselected set of criteria related to said reliable measurement results; and
  - using said selected set to form an optimal calibration for said device to said subject.
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A<sup>3</sup> 3. (Amended) The method of claim 1 wherein the step of forming a plurality of subsets further comprises the forming of subsets having at least one alternative specified number of members, said alternative number(s) unequal to said first number.

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A<sup>4</sup> 8. (Amended) The method of claim 7 wherein said set of reliable measurement results is amended by duplicating, at least once, the measurement results taken from any one of three of said subject's fingers.

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16. (Amended) A method for calibrating a non-invasive NIR blood glucose measurement device to a subject, said method comprising the steps of:

- forming a data set comprising a plurality of optical measurement data terms for said NIR measurement device;
  - augmenting said data set by forming cross-products terms using said data terms;
  - forming a plurality of subsets having at least one specified number of members randomly selected from said data set;
  - A<sup>5</sup> - evaluating each of said plurality of subsets against a set of reliable blood glucose measurements for said subject;
  - selecting one of said sets based on a preselected set of criteria, including the ability of the subset to predict said set of reliable blood glucose measurements for said subject; and
  - using said selected set to calibrate said NIR blood glucose measurement device to said subject.
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